

REMARKS

Claims 1-9, 11-14, 16 and 17 are pending in this application. Claims 1, 3 and 9 are herein amended. Claims 10 and 15 are herein cancelled. No new matter has been added.

Support for the newly amended claims 1 and 9 may be found within the originally filed specification, for example, original claims 9 and 10, and page 13, lines 16 to 24.

Claim 3 is amended to correct an obvious error in terminology, as cited by the Examiner in the Office Action.

Claim Rejections – 35 U.S.C. §112, Second Paragraph

Claims 3 and 15 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Favorable reconsideration is requested in view of the amendments made herein.

Claim 3 is herein amended. In light of the amendment, Applicants have overcome this rejection.

Claim 15 is herein cancelled. In light of cancelling claim 15, this rejection is now rendered moot.

Claim Rejections – 37 C.F.R. §1.75(c)

Claim 15 was objected to under 37 C.F.R. §1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claim 15 is herein cancelled. Thus, this rejection is now rendered moot.

Claim Rejections – 35 U.S.C. §102/35 U.S.C. §103

Claims 1-17 were rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Nobuaki et al. (EP 759 459). Applicants respectfully traverse this rejection.

In Nobuaki, a polyetherester “B” is disclosed. As disclosed in claim 1 of Nobuaki, the polyetherester “B” is composed mainly of (B1), (B2), (B3) and (B4). The polyetherester “B” includes hydrophilic blocks which do not contain an aromatic ring, and “B” includes lipophilic blocks which do not contain an aromatic ring.

The Examiner states that the polyethylene glycol hydrophilic blocks have a molecular weight of 2,000. See Office Action, page 3. The polyethylene glycol hydrophilic block is assumed to correspond to (b) in claim 1 of this application. However, there is no aromatic ring in the polyethylene glycol hydrophilic blocks of Nobuaki. The presence of an aromatic ring is a feature of the presently claimed invention.

Nobuaki does not show all the elements of the presently claimed invention. Therefore, the presently claimed invention is novel over Nobuaki.

Additionally, Nobuaki does not disclose, teach, suggest or provide any reasoning for obtaining the resin composition recited in claim 1, and therefore the present invention is not obvious in view of Nobuaki.

Favorable reconsideration is earnestly solicited.

Claim Rejections –35 U.S.C. §103

Claims 1-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamaguchi et al. (US 6,020,426) in view of any one of Miyamoto et al. (US 6,395,829) or Doak (US 4,469,845) or Ohnaga (US 6,143,826) and further optionally in view of Hirabayashi et al. (US 6,212,346). Applicants respectfully traverse this rejection.

In claim 1 of the presently claimed invention, the hydrophilic block (b) is at least one block selected from the group consisting of: (b1) nonionic hydrophilic blocks comprising an alkylene oxide adduct derived from a dihydric phenol; (b2): anionic hydrophilic blocks; and (b3): cationic hydrophilic blocks.

In Yamaguchi, the charge transporting block is a nonionic block copolymer, which contains inevitably a triarylamine structure. See Yamaguchi, Col. 10, lines 30 to 35. The nonionic block copolymer contained in Yamaguchi is clearly distinguishable from the nonionic hydrophilic blocks in the presently claimed invention.

None of the prior art references disclose the nonionic hydrophilic blocks of the presently claimed invention. Therefore, the presently claimed invention is not obvious over the prior art.

Furthermore, Yamaguchi discloses a charge-transporting copolymer. However, Yamaguchi is silent about a transparent resin corresponding to (B) of the presently claimed invention. The copolymer disclosed in Yamaguchi is used as a part of an electrophotographic photoreceptor. The electrophotographic photoreceptor is never used with mixing a transparent resin. It is not disclosed, taught, suggested or reasoned that the copolymer disclosed in

Yamaguchi is mixed with a transparent resin. Therefore, matching a refractive index of the copolymer with a refractive index of a transparent resin is not obvious.

Although the Examiner states that “the composition is disclosed to be preferably transparent at col. 124, lines 15 35-44” in page 4 of the Office Action, Applicants respectfully traverse the Examiner’s statement. Yamaguchi discloses “it is preferable that the charge transporting layer is virtually transparent to the light of the exposure wavelength in order that the effective sensitivity to light may not be decreased”. Thus, even if Yamaguchi means that the copolymer itself is transparent, it is not obvious from Yamaguchi that a resin composition, such as the presently claimed invention, is entirely transparent.

Hirabayashi discloses the volume resistivity of a charge transporting layer. However, the volume resistivity is related to the surface layer of the photosensitive body. See Hirabayashi, Col. 12 lines 26 to 30. The photosensitive body of Hirabayashi has a plurality of layers and each of the layers has respectively different volume resistivity. See Hirabayashi, FIG. 7 and Col. 11, line 62 to Col. 12, line 36.

In contrast, the resin composition of the presently claimed invention does not have a plurality of layers. Moreover, there is no reason for one of ordinary skill in the art at the time the invention was made to take the volume resistivity of a specific layer out of the plurality of layers of Hirabayashi and to combine it with any other prior art references. Therefore, the volume resistivity of the presently claimed invention is not obvious from Hirabayashi.

The Examiner cites Ohnaga, Miyamoto and Doak as all disclosing that transparency may be conferred by matching the refractive indices of the components and in which the components include block polymers.

However, as stated above while addressing Yamaguchi, the electrophotographic photoreceptor disclosed in Yamaguchi is never used with mixing a transparent resin. Therefore, one ordinarily skilled in the art would not try to match the refractive index of the copolymer disclosed in Yamaguchi with the refractive index of a transparent resin, as disclosed in Ohnaga, Miyamoto and Doak.

Moreover, even if one ordinarily skilled in the art combines Yamaguchi with Hirabayashi and any one of Miyamoto, Ohnaga or Doak to match the refractive index of the block copolymer of Yamaguchi to obtain a transparent composition, one ordinarily skilled in the art would not achieve the presently claimed invention because the copolymer disclosed in Yamaguchi is distinguishable from that of the presently claimed invention, as discussed above.

Additionally, Ohnaga, Miyamoto and Doak are silent about the volume resistivity of the block polymer, and therefore the volume resistivity of the block polymer in the presently claimed invention is not obvious from Ohnaga, Miyamoto and Doak.

Therefore, the presently claimed invention is not obvious from Yamaguchi in view of Ohnaga, Miyamoto, Doak and Hirabayashi.

Application No.: 10/560,782
Art Unit: 1796

Amendment Under 37 CFR §1.111
Attorney Docket No.: 053383

For at least the reasons set forth above, the subject matter of the presently claimed invention is not rendered obvious by the prior art. Favorable reconsideration is earnestly solicited.

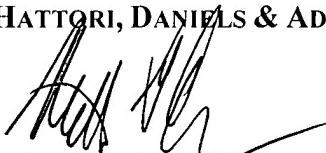
For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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